## CLAIMS

**1.** A method comprising:

encoding a digital signal in a manner that reduces variations over time in a collective signal level of the digital signal;

communicating the digital signal over a plurality of segments of signal lines; and

transposing the signal lines between the segments of signal lines in a manner that reduces differences between interline couplings of different pairs of the signal lines.

**2.** A method as recited in claim 1, wherein the interline coupling of a particular pair of signal lines is represented as a function of the distances between said particular pair of signal lines over all the segments.

**3.** A method as recited in claim 1, wherein the interline coupling of a particular pair of signal lines is represented as a function of a summation of the distances between said particular pair of signal lines over all the segments.

**4.** A method as recited in claim 1, wherein the segments have approximately equal lengths.

**5.** A method as recited in claim 1, wherein:

the segments have approximately equal lengths; and

the interline coupling of a particular pair of signal lines is represented as a function of a summation of the distances between said particular pair of signal lines over all the segments.

**6.** A method as recited in claim 1, wherein at least two of the segments have different lengths.

**7.** A method as recited in claim 1, wherein at least two of the segments have different lengths, the different lengths being such that they reduce differences between the interline couplings of different pairs of the signal lines.

**8.** An interconnection for communication of a digital signal, comprising:

three or more signal lines that traverse a plurality of segments, the signal lines being configured to carry individual signals that are encoded to reduce variations over time in a collective signal level of the individual signals;

wherein there is an interline coupling parameter associated with any particular pair of signal lines that is a function of the distances between said particular pair of signal lines over all the segments; and

wherein the signal lines are transposed between the segments in a manner that reduces differences between the interline coupling parameters of different pairs of the signal lines.

**9.** An interconnection as recited in claim 8, further comprising at least three of the segments.

**10.** An interconnection as recited in claim 8, further comprising a planar substrate upon which the signal lines are fabricated.

**11.** An interconnection as recited in claim 8, further comprising an encoder that encodes the signals in a manner that reduces variations over time in the collective signal level of the individual signals.

**12.** An interconnection as recited in claim 8, wherein the interline coupling parameter associated with any particular pair of signal lines is also a function of the lengths of the segments.

**13.** An interconnection as recited in claim 8, wherein the interline coupling parameter associated with any particular pair of signal lines is a function of a summation of the distances between said particular pair of signal lines over all the segments.

**14.** An interconnection as recited in claim 8, wherein the segments have approximately equal lengths.

**15.** An interconnection as recited in claim 8, wherein:

the segments have approximately equal lengths; and

the interline coupling parameter associated with any particular pair of signal lines is a function of a summation of the distances between said particular pair of signal lines over all the segments.

**16.** An interconnection as recited in claim 8, wherein at least two of the segments have different lengths.

**17.** An interconnection as recited in claim 8, wherein at least two of the segments have different lengths, the different lengths being such that they reduce differences between the interline coupling parameters of different pairs of the signal lines.

**18.** An interconnection as recited in claim 8, wherein the differences between the interline coupling parameters are reduced to a ratio of no greater than 2 to 1.

**19.** An interconnection as recited in claim 8, wherein the differences between the interline coupling parameters are reduced to a ratio of no greater than 1.5 to 1.

**20.** An interconnection for communication of a digital signal, comprising:

three or more signal lines that traverse a plurality of segments, wherein there is an interline coupling parameter associated with any particular pair of

signal lines that is a function of the distances between said particular pair of signal lines over all the segments; and

wherein the signal lines are transposed between the segments in a manner that reduces differences between the interline coupling parameters of different pairs of the signal lines.

**21.** An interconnection as recited in claim 20, further comprising at least three of the segments.

**22.** An interconnection as recited in claim 20, further comprising a planar substrate upon which the signal lines are fabricated.

**23.** An interconnection as recited in claim 20, further comprising an encoder configured to encode the digital signal in a manner that reduces variations over time in a collective signal level on the signal lines.

**24.** An interconnection as recited in claim 20, wherein the interline coupling parameter associated with any particular pair of signal lines is also a function of the lengths of the segments.

**25.** An interconnection as recited in claim 20, wherein the interline coupling parameter associated with any particular pair of signal lines is a function of a summation of the distances between said particular pair of signal lines over all the segments.

**26.** An interconnection as recited in claim 20, wherein the segments have approximately equal lengths.

**27.** An interconnection as recited in claim 20, wherein:

the segments have approximately equal lengths; and

the interline coupling parameter associated with any particular pair of signal lines is a function of a summation of the distances between said particular pair of signal lines over all the segments.

**28.** An interconnection as recited in claim 20, wherein at least two of the segments have different lengths.

**29.** An interconnection as recited in claim 20, wherein at least two of the segments have different lengths, the different lengths being such that they reduce differences between the interline coupling parameters of different pairs of the signal lines.

**30.** An interconnection as recited in claim 20, wherein the differences between the interline coupling parameters are reduced to a ratio of no greater than 2 to 1.

**31.** An interconnection as recited in claim 20, wherein the differences between the interline coupling parameters are reduced to a ratio of no greater than 1.5 to 1.

**32.** An interconnection for communication of a digital signal, comprising:

three or more signal lines that traverse a plurality of segments, wherein there is a coupling term C($m$, $n$, $s$) associated with any particular pair of signal lines $m$ and $n$ over a particular segment $s$;

wherein an interline coupling between each pair of signal lines $m$ and $n$ is represented as a function of C($m$, $n$, $s$) for all segments $s$; and

wherein the signal lines are transposed between the segments in a manner that reduces differences between the interline couplings of different pairs of the signal lines.

**33.** An interconnection as recited in claim 32, wherein the interline coupling between a pair of signal lines $m$ and $n$ is represented as the summation of C($m$, $n$, $s$) over all segments $s$.

**34.** An interconnection as recited in claim 32, wherein the coupling term C($m$, $n$, $s$) is a function of the distance between signal lines $m$ and $n$ over segment $s$.

**35.** An interconnection as recited in claim 32, wherein the coupling term C($m$, $n$, $s$) is a function of the distance between signal lines $m$ and $n$ over segment $s$ and of the length of segment $s$.

**36.** An interconnection as recited in claim 32, wherein the coupling term C($m$, $n$, $s$) is a function of the distance between signal lines $m$ and $n$ over segment $s$ multiplied by the length of segment $s$.

**37.** An interconnection as recited in claim 32, wherein the coupling term C($m$, $n$, $s$) is a function the length of segment $s$.

**38.** An interconnection as recited in claim 32, further comprising at least three of the segments.

**39.** An interconnection as recited in claim 32, further comprising a planar substrate upon which the signal lines are fabricated.

**40.** An interconnection as recited in claim 32, further comprising an encoder configured to encode the digital signal in a manner that reduces variations over time in a collective signal level on the signal lines.

**41.** An interconnection as recited in claim 32, wherein the segments have approximately equal lengths.

**42.** An interconnection as recited in claim 32, wherein the differences between the interline couplings are reduced to a ratio of no greater than 2 to 1.

**43.** An interconnection as recited in claim 32, wherein the differences between the interline couplings are reduced to a ratio of no greater than 1.5 to 1.